

Mineral Industry Surveys

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MOLYBDENUM IN JUNE 2011

Domestic production of molybdenum (Mo) in concentrate in June 2011 was about 12% less than the output of the previous month but about 48% more than that of June 2010. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 8,150 metric tons (t) at the beginning of 2011 and about 8,780 t at the end of June.

According to Ryan's Notes, the June monthly average price range for U.S. ferromolybdenum (FeMo) was \$18.050 to \$18.388 per pound of molybdenum content, compared with \$18.511 to \$18.783 in May. European FeMo monthly averages ranged from \$37.894 to \$38.488 per kilogram (kg) of molybdenum content in June compared with \$39.467 to \$39.906 per kg in May. In June, worldwide molybdenum oxide (MoO₃) prices ranged from \$15.944 to \$16.238 per pound compared with \$16.694 to \$16.933 per pound in May.

China's exports of MoO₃ (roasted molybdenum concentrate) decreased by 15% to 9,636 t MoO₃ in the first 6 months of 2011 compared with exports during the same time period in 2010, according to official customs data. In the first 6 months of 2011,

China's exports to the United States were down 51% to 340 t MoO₃, and exports to India declined 78% to 530 t MoO₃, compared with those of the same time period of 2010. However, exports to Japan in the first 6 months of 2011 increased by 32% to 1,589 t MoO₃, compared with those of the same time period of 2010 (Metal-Pages, 2011).

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, U.S. consumption by end use, and consumer stocks of molybdenum material in May and June 2011. Export data for April and May 2011 and import data for May 2011 are also included.

Reference Cited

Metal-Pages, 2011, China Jan-June molybdenum oxide exports down 15.3%: Metal-Pages, July 28. (Accessed December 9, 2011, via <http://www.metal-pages.com/>.)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2010 ^p		2011		
	January– December	January– June	May	June	January– June
Production	58,500 ^r	32,700 ^r	6,470 ^r	5,730	35,000
Shipments: ²					
Domestic	14,000	6,630	1,670 ^r	W	W
Export	W	W	W	W	W

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits.

²As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM
PRODUCTS¹

(Metric tons, contained molybdenum)

	2010 ^p		2011		
	January– December	January– June	May	June	January– June
Gross production	68,600	32,700 ^r	W	W	W
Internal consumption ²	W	W	W	W	W
Gross shipments	51,100	24,600 ^r	W	W	W

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits.

²Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molybdenum ²	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2011, May:						
Steel:						
Carbon	34,700	W	--	--	W	34,700
High-strength low-alloy	52,900	8,230	--	--	--	61,200
Stainless and heat-resisting	173,000	67,100	--	(3)	6,510	246,000
Full alloy	264,000	295,000	--	--	W	559,000
Tool	W	W	--	--	--	W
Total	525,000	370,000	--	--	6,510	901,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	(4)	W	--	(4)	91,000	91,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	64	W	--	--	--	64
Mill products made from metal powder ⁵	--	--	--	--	W	W
Cemented carbides and related products ⁶	--	--	--	--	6	6
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	47,100	55,200	--	--	294,000	396,000
Grand total	649,000 [†]	425,000	--	--	402,000	1,480,000 [†]
Stocks, May 31, 2011	509,000	307,000	2,060	(7)	(7)	1,740,000
2011, June:						
Steel:						
Carbon	33,300	W	--	--	W	33,300
High-strength low-alloy	61,100	7,320	--	--	--	68,400
Stainless and heat-resisting	171,000	66,900	--	(3)	6,510	244,000
Full alloy	284,000	318,000	--	--	W	602,000
Tool	W	W	--	--	--	W
Total	549,000	392,000	--	--	6,510	948,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	(4)	W	--	(4)	97,100	97,100
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	81	W	--	--	--	81
Mill products made from metal powder ⁵	--	--	--	--	W	W
Cemented carbides and related products ⁶	--	--	--	--	6	6
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	47,100	58,500	--	--	281,000	387,000
Grand total	674,000	450,000	--	--	396,000	1,520,000
Stocks, June 30, 2011	450,000	307,000	2,060	(7)	(7)	1,680,000

[†]Revised. W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified uses: Other" category. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes calcium molybdate.

³Withheld to avoid disclosing company proprietary data; included in "Other, Miscellaneous and unspecified uses: Other" category.

⁴Withheld to avoid disclosing company proprietary data.

⁵Includes ingot, wire, rod, and sheet.

⁶Includes construction, mining, oil and gas, metalworking machinery.

⁷Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2010			2011		
	January– December	May	January– May	April	May	January– May
Argentina	17,200	--	--	--	--	--
Australia	--	--	--	--	--	800
Austria	440,000	--	13,800	47,900	--	209,000
Belgium	9,610,000	782,000	3,450,000	830,000	544,000	4,140,000
Brazil	310,000	32,100	78,300	44,400	40,300	173,000
Canada	1,150,000	150,000	469,000	208,000	124,000	741,000
Chile	--	--	--	499,000	439,000	938,000
China	5,280,000	405,000	2,590,000	130,000	305,000	1,270,000
El Salvador	--	--	--	--	--	881
Finland	--	--	--	11,800	47,900	143,000
France	16,600	--	4,410	11,900	24,400	84,500
Germany	143,000	--	19,900	49,900	39,200	119,000
Hong Kong	1,140	--	--	--	--	--
India	924,000	45,300	232,000	101,000	47,100	528,000
Italy	13,200	--	--	1,910	11,700	37,300
Japan	2,630,000	170,000	723,000	336,000	475,000	1,640,000
Korea, Republic of	805,000	67,600	320,000	171,000	131,000	794,000
Luxembourg	11,500	--	--	--	--	24,800
Mexico	5,040,000	370,000	2,190,000	648,000	768,000	3,220,000
Netherlands	8,210,000	774,000	3,430,000	959,000	1,110,000	4,160,000
New Caledonia	1,050	--	--	--	--	--
Panama	2,360	--	--	--	--	--
Poland	194	194	194	--	--	--
Slovenia	24,600	--	12,400	--	--	--
South Africa	520,000	23,800	124,000	--	--	--
Spain	24,600	12,300	24,600	--	99	99
Sweden	12,100	--	--	7,600	24,000	85,900
Taiwan	67,900	--	--	22,800	--	40,500
Thailand	19,200	--	9,620	7,260	--	7,260
United Arab Emirates	154,000	--	12,300	--	--	12,600
United Kingdom	5,000,000	455,000	1,690,000	827,000	629,000	3,440,000
Venezuela	940	--	940	--	--	--
Vietnam	149,000	2,870	30,800	878	641	21,500
Total	40,600,000	3,290,000	15,400,000	4,920,000	4,760,000	21,800,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2010			2011		
	January– December	May	January– May	April	May	January– May
Argentina	13,300	--	--	--	--	--
Australia	628	278	628	--	--	--
Canada	677,000	46,600	299,000	93,600	67,600	361,000
Colombia	1,170	--	620	--	--	--
Denmark	372	--	--	--	330	330
India	36,600	--	10,900	--	--	--
Japan	12,700	--	--	--	--	--
Korea, Republic of	11,200	--	--	--	--	--
Mexico	12,900	--	2,800	952	--	7,610
Netherlands	196,000	--	--	25,700	25,600	177,000
Philippines	939	--	939	--	--	--
Singapore	14,300	7,380	7,380	--	--	--
Turkey	103	--	--	13,200	13,300	62,400
Total	978,000	54,300	323,000	133,000	107,000	609,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	January–December 2010			May 2011			January–May 2011		
	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates roasted	10,300,000	6,340,000	\$112,000	567,000	355,000	\$6,450	4,260,000	2,630,000	\$51,900
Ore and concentrates other	13,500,000	6,610,000	202,000	1,660,000	325,000	31,100	7,170,000	2,290,000	139,000
Molybdenum chemicals:									
Oxides and hydroxides	508,000	NA	12,200	--	--	--	24,800	--	684
Molybdates of ammonium	1,590,000	905,000	28,600	2,500	1,530	42	403,000	248,000	9,660
Molybdates (all others)	62,600	23,300	1,510	1,880	890	108	16,900	7,240	785
Molybdenum orange	349,000	NA	2,730	30,300	NA	253	135,000	NA	1,220
Ferromolybdenum	5,330,000	3,560,000	130,000	327,000	210,000	8,480	1,970,000	1,310,000	50,500
Molybdenum powders	232,000	221,000	10,100	7,790	7,170	472	150,000	148,000	7,250
Molybdenum unwrought	307,000	301,000	10,200	45,700	44,900	1,860	156,000	149,000	5,950
Molybdenum waste and scrap	703,000	682,000	26,900	68,500	67,900	2,790	296,000	274,000	11,500
Molybdenum wire	19,300	NA	3,030	1,380	NA	216	7,490	NA	1,360
Molybdenum other	582,000	NA	37,500	122,000	NA	7,380	354,000	NA	26,400
Total	33,500,000	XX	576,000	2,830,000	XX	59,200	14,900,000	XX	306,000

NA Not available. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Customs value.

Source: U.S. Census Bureau.